

IN THE CLAIMS

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Please cancel claims 1 and 2 without prejudice or disclaimer.

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Please replace claims 3, 4, 10-13, 15, 18 and 19 with the following amended versions. In addition, please add new claims 20 and 21. For the Examiner's convenience, all pending claims are listed below.

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3. (Once Amended) An isolated antibody which specifically binds to a polypeptide selected from the group consisting of:

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- a) a polypeptide comprising the amino acid sequence of SEQ ID NO:1,
  - b) a polypeptide comprising a naturally-occurring amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO:1, said naturally-occurring amino acid sequence encoding a polypeptide having protease inhibitor activity, and
  - c) an immunogenic fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:1.

4. (Once Amended) A diagnostic test for a condition or disease associated with the expression of GAPIP in a biological sample, the method comprising:

- a) combining the biological sample with an antibody of claim 3, under conditions suitable for the antibody to bind the polypeptide and form an antibody: polypeptide complex; and
  - b) detecting the complex, wherein the presence of the complex correlates with the presence of the polypeptide in the biological sample.
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5. The antibody of claim 3, wherein the antibody is:

- (a) a chimeric antibody;
- (b) a single chain antibody;
- (c) a Fab fragment;
- (d) a F(ab')<sub>2</sub> fragment; or
- (e) a humanized antibody.

6. A composition comprising an antibody of claim 3 and an acceptable excipient.


7. A method of diagnosing a condition or disease associated with the expression of GAPIP in a subject, comprising administering to said subject an effective amount of the composition of claim 6.

8. A composition of claim 6, wherein the antibody is labeled.

9. A method of diagnosing a condition or disease associated with the expression of GAPIP in a subject, comprising administering to said subject an effective amount of the composition of claim 8.

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10. (Once Amended) A method of preparing a polyclonal antibody with the specificity of the antibody of claim 3, the method comprising:

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- a) immunizing an animal with a polypeptide comprising the amino acid sequence of SEQ ID NO:1, or an immunogenic fragment thereof, under conditions to elicit an antibody response;
  - b) isolating antibodies from said animal; and
  - c) screening the isolated antibodies with the polypeptide, thereby identifying a polyclonal antibody which binds specifically to a polypeptide comprising the amino acid sequence of SEQ ID NO:1.

11. (Once Amended) A polyclonal antibody produced by a method of claim 10.

12. (Once Amended) A composition comprising the polyclonal antibody of claim 11 and a suitable carrier.

13. (Once Amended) A method of making a monoclonal antibody with the specificity of the antibody of claim 3, the method comprising:

- a) immunizing an animal with a polypeptide comprising the amino acid sequence of SEQ ID NO:1, or an immunogenic fragment thereof, under conditions to elicit an antibody response;
  - b) isolating antibody producing cells from the animal;
  - c) fusing the antibody producing cells with immortalized cells to form monoclonal antibody-producing hybridoma cells;
  - d) culturing the hybridoma cells; and
  - e) isolating from the culture monoclonal antibody which binds specifically to a polypeptide comprising the amino acid sequence of SEQ ID NO:1.
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14. A monoclonal antibody produced by a method of claim 13.

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15. (Once Amended) A composition comprising the monoclonal antibody of claim 14 and a suitable carrier.

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16. The antibody of claim 3, wherein the antibody is produced by screening a Fab expression library.

17. The antibody of claim 3, wherein the antibody is produced by screening a recombinant immunoglobulin library.

18. (Once Amended) A method for detecting a polypeptide comprising the amino acid sequence of SEQ ID NO:1 in a sample, the method comprising:

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- a) incubating the antibody of claim 3 with a sample under conditions to allow specific binding of the antibody and the polypeptide; and
  - b) detecting specific binding, wherein specific binding indicates the presence of a polypeptide comprising the amino acid sequence of SEQ ID NO:1 in the sample.

19. (Once Amended) A method of purifying a polypeptide comprising the amino acid sequence of SEQ ID NO:1 from a sample, the method comprising:

- a) incubating the antibody of claim 3 with a sample under conditions to allow specific binding of the antibody and the polypeptide; and
- b) separating the antibody from the sample and obtaining the purified polypeptide comprising the amino acid sequence of SEQ ID NO:1.

20. (New) An isolated antibody of claim 3, which specifically binds to an immunogenic fragment having at least 15 contiguous amino acid residues of a polypeptide comprising the amino acid sequence of SEQ ID NO:1.

21. (New) An isolated antibody of claim 3, which specifically binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:1.